Item ID: D2161-212   Accept   *N9000401100*   Setup Start *NS1*

Revision ID:

Item Name: Mirror Bracket, 212   Stop *NS2*

Start Date: 5/28/13   **Start Qty:** 4.00   *4*   **Cust Item ID:**

Required Date: 5/28/13 **Req'd Qty:** 4.00   *4*   **Customer:**

Reference:

Run Start *NR1*

Approvals: **Process Plan:** MLJ   **Date:** 13-04-24 **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____   **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D2161	Rev B2								
100 *100* Large Fab Large Fab	Weld per dwg A/R S.S. rod Batch: m122357 Large Fab m126048 Memo 1-Assemble on Jig DT8065 as per Dwg D2161 2-Weld as per Dwg D2161 Identify as D2161-212	0.00 0.00				(x4) me 13-06-26			
110 *110* QC Quality Control	QC9- Inspect visual per QS1004- Fusion Welds Memo	0.00 0.00				(4) 13-06-26			DAS 09 9-89
120 *120* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00				(4) 13-06-26			DAS 09 9-89

WORK ORDER NON-CONFORMANCE / UPDATE

NCR: Yes / No

QA Closed: Date:

Work Order: _____		
Part No. _____		
NCR No. _____		

DISPOSITION

Rework	☐
Scrap	☐
Use-as-is	☐
Work Order Update	☐

AGAINST DEPARTMENT/PROCESS

Skid-tube	☐	Crosstube	☐	Water Jet	☐	Engineering	☐
Machining	☐	Small Fab	☐	Prod. Eng. Coor.	☐	Quality	☐
Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐	Other	☐
Large Fab	☐	Composite	☐	Supplier	☐		☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear

☐	Bending
☐	Centre Not Concentric to O/S
☐	Cracks
☐	Crushed/Crimped
☐	Cuffs
☐	Heat Treat
☐	Inspection Strip in Tube
☐	Ripples in Bend
☐	Torque Waves in Extrusion
☐	Turning Sequence
☐	Wave/Twist in Tube

General

☐	Bend
☐	BOM/Route
☐	Broken/Damaged
☐	Burrs
☐	Contamination
☐	Countersink
☐	Cut Too Short
☐	Drill Holes
☐	Drawing
☐	Finish
☐	Folio

☐	Grain
☐	Hardware
☐	Inspection Incomplete
☐	Instructions Incomplete/Unclear
☐	Maintenance
☐	Mislabeled
☐	Misread
☐	Offset
☐	Out of Calibration
☐	Out of Sequence
☐	Outside Dimensions

☐	Ovalized
☐	Over/Under tolerance
☐	Part Incorrect
☐	Part Lost/Missing
☐	Part Moved
☐	Positioned Wrong
☐	Power Loss/Surge

☐	Pressure/Forced
☐	Temperature/Cure
☐	Weld
☐	Wrong Stock Pulled
☐	Other

_____
_____

Item ID:	D2161-212		Accept	*N90004010N*	Setup	Start	*NS1*
Revision ID:							
Item Name:	Mirror Bracket, 212					Stop	*NS2*

Start Date:	5/28/13	Start Qty: 4.00	*4*		Cust Item ID:		
Required Date:	5/28/13	Req'd Qty: 4.00	*4*		Customer:		
Reference:							

| Approvals: | Process Plan: _____ | Date: _____ | Tooling: _____ | Date: _____ | Run | Start | *NR1* |
| | QC: _____ | Date: _____ | SPC (Y/N): _____ | Date: _____ | | Stop | *NR2* |

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Powdercoat Powder Coating	Black Sandtex(Ref:4.3.5.7) per QSI005 4.3	0.00							
	Memo 8-30	0.00							4 X ∅ M-L13/06/26
	START TIME: 8 OVEN TEMPERATURE:								
M123480	320°F FINISH TIME: 9-00								
140 *140* QC Quality Control	QC3- Inspect Part Finish	0.00							
	Memo	0.00							4✓ ∅ JW 13/06/26
150 *150* Packaging Packaging	PPP163200 Identify as per dwg & Stock Location:_____	0.00							4X SP 13-6-27.
	Memo	0.00							

WORK ORDER NON-CONFORMANCE / UPDATE

NCR: Yes / No

QA Closed: _____ Date: _____

Work Order: _____	**DISPOSITION**	**AGAINST DEPARTMENT/PROCESS**	
Part No. _____	Rework ☐	Skid-tube ☐ Crosstube ☐ Water Jet ☐ Engineering ☐	
	Scrap ☐	Machining ☐ Small Fab ☐ Prod. Eng. Coor. ☐ Quality ☐	
	Use-as-is ☐	Thermoforming ☐ Finishing ☐ Rec/Store/Packaging ☐ Other ☐	
NCR No. _____	Work Order Update ☐	Large Fab ☐ Composite ☐ Supplier ☐	

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear	General			
☐ Bending	☐ Bend	☐ Grain	☐ Ovalized	☐ Pressure/Forced
☐ Centre Not Concentric to O/S	☐ BOM/Route	☐ Hardware	☐ Over/Under tolerance	☐ Temperature/Cure
☐ Cracks	☐ Broken/Damaged	☐ Inspection Incomplete	☐ Part Incorrect	☐ Weld
☐ Crushed/Crimped	☐ Burrs	☐ Instructions Incomplete/Unclear	☐ Part Lost/Missing	☐ Wrong Stock Pulled
☐ Cuffs	☐ Contamination	☐ Maintenance	☐ Part Moved	
☐ Heat Treat	☐ Countersink	☐ Mislabeled	☐ Positioned Wrong	
☐ Inspection Strip in Tube	☐ Cut Too Short	☐ Misread	☐ Power Loss/Surge	☐ Other
☐ Ripples in Bend	☐ Drill Holes	☐ Offset		
☐ Torque Waves in Extrusion	☐ Drawing	☐ Out of Calibration	_____	
☐ Turning Sequence	☐ Finish	☐ Out of Sequence	_____	
☐ Wave/Twist in Tube	☐ Folio	☐ Outside Dimensions	_____	

Item ID:	D2161-212			Accept	*N9000040100*	Setup	Start	*NS1*
Revision ID:							Stop	*NS2*
Item Name:	Mirror Bracket, 212							
Start Date:	5/28/13	Start Qty:	4.00	*4*		Cust Item ID:		
Required Date:	5/28/13	Req'd Qty:	4.00	*4*		Customer:		
Reference:								

						Run	Start	*NR1*
Approvals:	Process Plan: _____	Date: _____	Tooling: _____	Date: _____			Stop	*NR2*
	QC: _____	Date: _____	SPC (Y/N): _____	Date: _____				

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC21- Final Inspection - Work Order Release	0.00						13/7/8	
160									
QC	Memo	0.00							
Quality Control									

MF
13-7-8

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

| Work Order: _____ |
| Part No. _____ |
| NCR No. _____ |

DISPOSITION

Rework	☐
Scrap	☐
Use-as-is	☐
Work Order Update	☐

AGAINST DEPARTMENT/PROCESS

Skid-tube	☐	Crosstube	☐	Water Jet	☐	Engineering	☐
Machining	☐	Small Fab	☐	Prod. Eng. Coor.	☐	Quality	☐
Thermoforming	☐	Finishing	☐	Rec/Store/Packaging	☐	Other	☐
Large Fab	☐	Composite	☐	Supplier	☐		☐

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear
- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General
- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio

- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions

- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge

- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____
_____
_____

Picklist Print

Work Order ID:	100252		
Parent Item:	D2161-212	Start Date: 5/28/13	Required Date: 5/28/13
Parent Item Name:	Mirror Bracket, 212	Start Qty: 4.00	Required Qty: 4.00

Comments: IPP   D02.04.15Added dwg Rev.B1 and finishNG

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D20153 Mirror Bracket LH, 212		Manufactured	No	*78 914X4*		100	Each	0.0000	1	*(X4)*	*4*	*m.e 13-06-26*	
D20134 Mirror Bracket RH, 212		Manufactured	No	*97919X4*		100	Each	0.0000	1	*(X4)*	*4*	*m.e 13-06-26*	
D2037-101 Arm		Manufactured	No			100	Each	4.0000	1	*(X4)*	*4*	*m.e 13-06-26*	

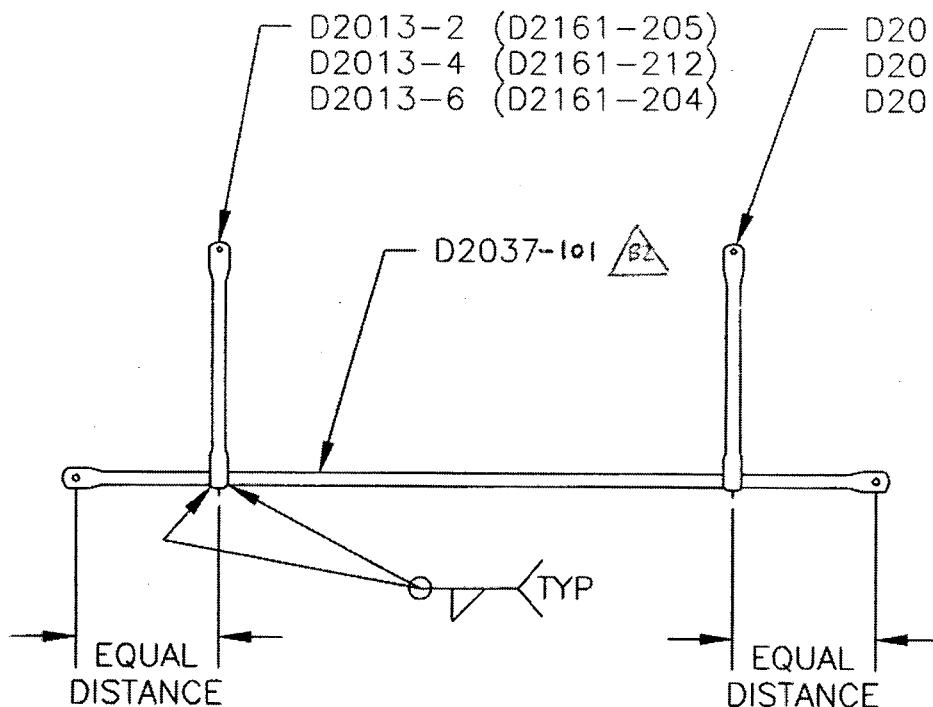| Location	Loc Qty	Loc Code
WA001	4	
80793	3	
95094	1	

100400 X 3

97707 X 1

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____	DISPOSITION	AGAINST DEPARTMENT/PROCESS

DISPOSITION
- Rework ☐
- Scrap ☐
- Use-as-is ☐
- Work Order Update ☐

AGAINST DEPARTMENT/PROCESS

Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐
Machining ☐	Small Fab ☐	Prod. Eng. Coor. ☐	Quality ☐
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
Large Fab ☐	Composite ☐	Supplier ☐	

Work Order: _____

Part No. _____

NCR No. _____

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data ☐									
Equip/Tooling ☐									
Operator ☐									
Material ☐									
Setup ☐									
Other ☐									
Process ☐									
Supplier ☐									
Training ☐									
Unapproved ☐									

FAULT CATEGORY

Landing Gear
- ☐ Bending
- ☐ Centre Not Concentric to O/S
- ☐ Cracks
- ☐ Crushed/Crimped
- ☐ Cuffs
- ☐ Heat Treat
- ☐ Inspection Strip in Tube
- ☐ Ripples in Bend
- ☐ Torque Waves in Extrusion
- ☐ Turning Sequence
- ☐ Wave/Twist in Tube

General
- ☐ Bend
- ☐ BOM/Route
- ☐ Broken/Damaged
- ☐ Burrs
- ☐ Contamination
- ☐ Countersink
- ☐ Cut Too Short
- ☐ Drill Holes
- ☐ Drawing
- ☐ Finish
- ☐ Folio

- ☐ Grain
- ☐ Hardware
- ☐ Inspection Incomplete
- ☐ Instructions Incomplete/Unclear
- ☐ Maintenance
- ☐ Mislabeled
- ☐ Misread
- ☐ Offset
- ☐ Out of Calibration
- ☐ Out of Sequence
- ☐ Outside Dimensions

- ☐ Ovalized
- ☐ Over/Under tolerance
- ☐ Part Incorrect
- ☐ Part Lost/Missing
- ☐ Part Moved
- ☐ Positioned Wrong
- ☐ Power Loss/Surge

- ☐ Pressure/Forced
- ☐ Temperature/Cure
- ☐ Weld
- ☐ Wrong Stock Pulled
- ☐ Other

_____
_____
_____

D2013-2 (D2161-205)
D2013-4 (D2161-212)
D2013-6 (D2161-204)

D2013-1 (D2161-205)
D2013-3 (D2161-212)
D2013-5 (D2161-204)

100252
MLJ
13-01-24

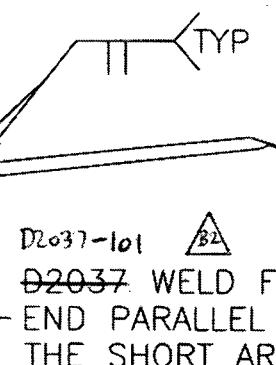D2037-101 ⚠B2

PLACE SHORTER ARM
ON SIDE OF JIG DT8065
LABELED FWD (TYP)

⟨TYP

⟨TYP

D2037-101 ⚠B2

D2037 WELD FLAT
END PARALLEL TO
THE SHORT ARM

EQUAL
DISTANCE

EQUAL
DISTANCE

DETAIL OF D2161-204
DETAIL OF D2161-205
DETAIL OF D2161-212

NOTE: WELD ASSEMBLY
USING JIG DT8065

FINISH: POWDER COAT ASSEMBLY BLACK
CRINKLE (4.3.5.3) PER DART QSI 005 4.3
POWDER COAT BLACK SANDTEX (4.3.5.7) PER
DART QSI 005 4.3 ⚠3

RELEASED
KE 99.06.10
D2037-101 WELD FINISH

		DATE		
		CHECKED	KE	APPROVED
B1				
B2				
	B	99.06.07		REDRAWN FOR CLARITY ADDED -204/-205/-212 DESIGNATIONS
	A	93.04.29		NEW ISSUE
		02.03.25	02.06.14	D2037-101 WELD FINISH CHANGE FINISH

DESIGN JB
CHECKED
DRAWN BY RE

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

TITLE MIRROR BRACKET

DRAWING NO. D2161

REV. B
SHEET 1 OF 1
SCALE NTS

QA COPY ISSUED